

MM	MM	TTTTTTTTTT	HH	HH	GGGGGGGG	PPPPPPPP	RRRRRRRR	000000	DDDDDDDD
MM	MM	TTTTTTTTTT	HH	HH	GGGGGGGG	PPPPPPPP	RRRRRRRR	000000	DDDDDDDD
MMM	MMM	TT	HH	HH	GG	PP	RR	00	DD
MMM	MMM	TT	HH	HH	GG	PP	RR	00	DD
MM	MM	TT	HH	HH	GG	PP	RR	00	DD
MM	MM	TT	HH	HH	GG	PP	RR	00	DD
MM	MM	TT	HHHHHHHHHH	GG	PPPPPPPP	RRRRRRRR	00	DD	
MM	MM	TT	HHHHHHHHHH	GG	PPPPPPPP	RRRRRRRR	00	DD	
MM	MM	TT	HH	HH	GG	GGGGGG	PP	RR	DD
MM	MM	TT	HH	HH	GG	GGGGGG	PP	RR	DD
MM	MM	TT	HH	HH	GG	GG	PP	RR	DD
MM	MM	TT	HH	HH	GG	GG	PP	RR	DD
MM	MM	TT	HH	HH	GG	GGGGGG	PP	RR	DD
MM	MM	TT	HH	HH	GGGGGG	PP	RR	RR	DD
MM	MM	TT	HH	HH	GGGGGG	PP	RR	RR	DD

The number 7 is formed by three main components:

- A vertical column of 10 'L' characters on the left.
- A horizontal row of 8 'L' characters at the bottom, starting from the first 'L' of the vertical column and extending to the right.
- A central vertical column of 10 'I' characters, aligned with the middle of the 'L' column.
- An upper-right section consisting of two rows of 8 'S' characters each, positioned above and to the right of the central 'I' column.
- A lower-right section consisting of four rows of 2 'S' characters each, stacked vertically to the right of the central 'I' column.

The overall shape is a stylized '7' where the top bar is made of 'S's and the stem is made of 'I's'.

MAC

(2)	50	HISTORY	; Detailed Current Edit History
(3)	57	DECLARATIONS	
(4)	89	MTH\$GPROD	- return G product of two FLOATING args

```
0000 1      .TITLE MTH$GPROD - G Floating Product
0000 2      .IDENT /1-001/ ; File: MTHGPROD.MAR
0000 3
0000 4
0000 5 *****
0000 6
0000 7 *  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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0000 22 *  DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS
0000 23 *  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
0000 24
0000 25 *****
0000 26
0000 27
0000 28
0000 29 FACILITY: MATH LIBRARY
0000 30 ++
0000 31 ABSTRACT:
0000 32 This module contains routine MTH$GPROD:
0000 33 Return the product of two G floating arguments.
0000 34
0000 35
0000 36 --
0000 37
0000 38 VERSION: 1
0000 39
0000 40 HISTORY:
0000 41
0000 42 AUTHOR:
0000 43 Steven B. Lionel, 26-Jan-79: Version 1
0000 44
0000 45 MODIFIED BY:
0000 46
0000 47
0000 48
```


MTH\$GPROD
1-001

K 1
- G Floating Product
HISTORY ; Detailed Current Edit History 16-SEP-1984 01:30:01 VAX/VMS Macro V04-00
6-SEP-1984 11:23:58 [MTHRTL.SRC]MTHGPROD.MAR;1 Page 2
(2)
0000 50 .SBTTL HISTORY ; Detailed Current Edit History
0000 51
0000 52
0000 53 ; Edit History for Version 1 of MTH\$GPROD
0000 54
0000 55 ; 1-001 - Adapted from MTH\$DPROD version 1-001. SBL 26-Jan-79

MT
2-

```

0000 57      .SBTTL  DECLARATIONS
0000 58
0000 59 :
0000 60 : INCLUDE FILES:
0000 61 :     NONE
0000 62 :
0000 63 :
0000 64 :
0000 65 : EXTERNAL SYMBOLS:
0000 66 :     NONE
0000 67 :
0000 68 :
0000 69 :
0000 70 :
0000 71 : MACROS:
0000 72 :     NONE
0000 73 :
0000 74 :
0000 75 :
0000 76 : PSECT DECLARATIONS:
0000 77 :     .PSECT  _MTH$CODE      PIC, SHR, EXE, NOWRT, LONG
0000 78 :
0000 79 :
0000 80 : EQUATED SYMBOLS:
0000 81 :     NONE
0000 82 :
0000 83 :
0000 84 :
0000 85 : OWN STORAGE:
0000 86 :     NONE
0000 87 :

```

```
0000 89      .SBTTL MTH$GPROD - return G product of two FLOATING args
0000 90
0000 91      :++
0000 92      : FUNCTIONAL DESCRIPTION:
0000 93      :   Convert the two single-precision floating-point arguments to
0000 94      :   G double-precision. Return the result of their multiplication
0000 95      :   in G double-precision.
0000 96      :
0000 97      :
0000 98      : CALLING SEQUENCE:
0000 99      :   Double_product.wg.v = MTH$GPROD (arg1.rf.r, arg2.rf.r)
0000 100     :
0000 101     :
0000 102     :
0000 103     : INPUT PARAMETERS:
0000 104     :   The two input parameters are single-precision floating-point
0000 105     :   values and are call-by-reference.
0000 106     :
0000 107     :
0000 108     : IMPLICIT INPUTS:
0000 109     :   NONE
0000 110     :
0000 111     : OUTPUT PARAMETERS:
0000 112     :   NONE
0000 113     :
0000 114     : IMPLICIT OUTPUTS:
0000 115     :   NONE
0000 116     :
0000 117     : COMPLETION CODES:
0000 118     :   NONE
0000 119     :
0000 120     : SIDE EFFECTS:
0000 121     :   Reserved Operand and Floating Overflow exceptions can occur.
0000 122     :
0000 123     :
0000 124     :--
0000 125
0000 126
0000 127
0000 128     .ENTRY MTH$GPROD,      ^M<R2, R3>      ; save R2 and R3
50    04 BC 99FD 0002 129     CVTFG  @4(AP), R0      ; R0/R1 = arg1
52    08 BC 99FD 0007 130     CVTFG  @8(AP), R2      ; R2/R3 = arg2
50    52 44FD 000C 131     MULG2   R2, R0      ; R0/R1 = R0/R1 * R2/R3
      04      0010 132     RET
      0011 133
      0011 134
      0011 135     .END
```


MTH\$GPROD
Symbol table

- G Floating Product

N 1

16-SEP-1984 01:30:01 VAX/VMS Macro V04-00
6-SEP-1984 11:23:58 [MTHRTL.SRC]MTHGPROD.MAR;1

Page 5
(4)

MTH\$GPROD 00000000 RG 01

! Psect synopsis !

PSECT name	Allocation	PSECT No.	Attributes														
ABS	00000000 (0.)	00 (0.)	NOPIC	USR	CON	ABS	LCL	NOSHR	NOEXE	NORD	NOWRT	NOVEC	BYTE				
MTH\$CODE	00000011 (17.)	01 (1.)	PIC	USR	CON	REL	LCL	SHR	EXE	RD	NOWRT	NOVEC	LONG				

! Performance indicators !

Phase	Page faults	CPU Time	Elapsed Time
Initialization	29	00:00:00.08	00:00:00.71
Command processing	103	00:00:00.39	00:00:02.90
Pass 1	63	00:00:00.33	00:00:01.85
Symbol table sort	0	00:00:00.00	00:00:00.00
Pass 2	37	00:00:00.31	00:00:02.23
Symbol table output	2	00:00:00.01	00:00:00.01
Psect synopsis output	2	00:00:00.02	00:00:00.02
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	238	00:00:01.15	00:00:07.87

The working set limit was 900 pages.
1297 bytes (3 pages) of virtual memory were used to buffer the intermediate code.
There were 10 pages of symbol table space allocated to hold 1 non-local and 0 local symbols.
135 source lines were read in Pass 1, producing 10 object records in Pass 2.
0 pages of virtual memory were used to define 0 macros.

! Macro library statistics !

Macro library name	Macros defined
-----	-----
_\$255\$DUA28:[SYSLIB]STARLET.MLB;2	0

0 GETS were required to define 0 macros.
There were no errors, warnings or information messages.
MACRO/ENABLE=SUPPRESSION/DISABLE=(GLOBAL,TRACEBACK)/LIS=LIS\$:MTHGPROD/OBJ=OBJ\$:MTHGPROD MSRC\$:MTHGPROD/UPDATE=(ENH\$:MTHGPROD)

0261

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